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**FINAL RESULTS OF INVESTIGATION OF PER- AND POLYFLUOROALKYL
SUBSTANCES IN OFF-BASE DRINKING WATER**

05/01/2019
CH2M HILL, INC.

Approved for public release: distribution unlimited.



**Naval Facilities Engineering Command Southwest
San Diego, California**

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DCN: CH2M-9000-0008-0012

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May 2019

Prepared for:



**Department of the Navy
Naval Facilities Engineering Command Southwest
1220 Pacific Highway
San Diego, CA 92132**

Prepared by:



**CH2M HILL, Inc.
Virginia Beach, Virginia**

**Contract Number: N62470-16-D-9000; Task Order No. 0008
DCN: CH2M-9000-0008-0012**

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Results of Investigation of Per- and Polyfluoroalkyl Substances in Off-Base Drinking Water Naval Air Station Fallon, Fallon, Nevada

PREPARED FOR: Naval Facilities Engineering Command (NAVFAC) Atlantic
NAVFAC Southwest
Naval Air Station (NAS) Fallon

PREPARED BY: CH2M HILL, Inc. (CH2M)

DATE: May 2019

Introduction

CH2M HILL, Inc. (CH2M) was contracted to evaluate impacts of potential releases of per- and polyfluoroalkyl substances (PFAS) to groundwater at Naval Air Station (NAS) Fallon in Fallon, Nevada (**Figure 1**), and collect drinking water samples for PFAS analysis from private drinking water sources near the Base. This technical memorandum (TM) presents the results of the drinking water investigation, which was performed on March 14, 2017, in accordance with the *Sampling and Analysis Plan for Investigation of Per- and Polyfluoroalkyl Compounds in Drinking Water, Naval Air Station Fallon, Fallon, Nevada* (SAP) (CH2M, 2017). CH2M prepared this TM under the Naval Facilities Engineering Command, Comprehensive Long-term Environmental Action—Navy 9000 Contract N62470-16-D-9000, Contract Task Order 08.

Per- and Polyfluoroalkyl Substances

PFAS are manufactured chemicals that have been used since the 1950s in many household and industrial products because of their stain- and water-repellant properties. Within the Department of the Navy's (Navy's) operations, PFAS are most commonly associated with aqueous film-forming foam (AFFF) used primarily for firefighting (including emergency response, equipment testing and/or training, and fire suppression systems in buildings). PFAS can also be present in other industrial and household materials. PFAS can also be found in vapor suppression systems and in waste streams. PFAS are now present virtually everywhere in the world because of the large amounts that have been manufactured and used. Once these compounds are released to the environment, they break down very slowly. PFAS are considered "emerging" contaminants, which have no Safe Drinking Water Act (SDWA) regulatory standards or routine water quality testing requirements. The United States Environmental Protection Agency (USEPA) is studying PFAS to determine if national regulation is needed. The State of Nevada Department of Environmental Protection (NDEP) has drinking water basic contaminant levels for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) (0.667 microgram per liter [µg/L]) and perfluorobutane sulfonate (PFBS) (667 µg/L)¹ (NDEP, 2018).

USEPA issued the third Unregulated Contaminant Monitoring Rule (UCMR3)² in May 2012. The UCMR3 required monitoring, between 2013 and 2015, for 30 substances in all large public water systems (PWSs) serving more than

¹ The NDEP Basic Contaminant Levels are not action levels or cleanup levels; rather, they are a screening tool to identify constituents of potential concern.

² The 1996 SDWA amendments require that once every 5 years USEPA issue a new list of no more than 30 unregulated contaminants to be monitored by PWSs.

10,000 people and 800 representative PWSs serving 10,000 or fewer people. Six PFAS compounds were included in the UCMR3 contaminant list; of these six PFAS, the USEPA has issued health advisories³ for only two, PFOA and PFOS, and has published toxicity values for another, PFBS. Health advisory levels are not regulatory standards. They are health-based concentrations that should offer a margin of protection for all Americans throughout their lives from adverse health effects resulting from exposure to PFOS and PFOA in drinking water. The USEPA health advisory level for lifetime exposure is 0.07 µg/L for PFOS and 0.07 µg/L for PFOA. When both PFOS and PFOA are found in drinking water, the combined concentrations should not exceed 0.07 µg/L (USEPA, 2016a and 2016b).

Navy Policy

The Navy issued a policy in 2014 requiring on-Base drinking water sampling for PFOA and PFOS for bases where groundwater was used as drinking water and PFAS could have been released nearby in the past. Under the policy, all installations not previously tested under UCMR3 that produce drinking water from on-Base sources and have an identified or suspected PFAS release within approximately 1 mile upgradient of the drinking water source, were required to sample their finished drinking water by December 2015. Since NAS Fallon obtains drinking water from a municipal utility, this policy did not require action by the Base. In June 2016, the Navy issued additional policy that required all Navy bases not previously tested under UCMR3 or the 2014 policy to test their finished drinking water, regardless of the water source (on-Base or municipal) or potential and known source of a PFAS release to the environment.

In June 2016, the Navy also issued a policy to identify and prioritize sites for investigation of drinking water resources, on- or off-Base, that are thought to be vulnerable to PFAS contamination from past Navy releases of PFAS, with a focus on AFFF. Sites with drinking water sources (water supply wells, surface water bodies used for drinking water, and reservoirs) within 1 mile downgradient of known or potential releases of PFAS were assigned the highest priority. These high-priority sites, Priority 1, were directed to sample the drinking water within fiscal year 2017.

As a result of this evaluation, downgradient or crossgradient off-Base drinking water supply wells were identified within 1.1⁴ miles of NAS Fallon, where there are known and suspected releases of PFAS to the environment. Two sites at NAS Fallon, which have been combined into one decision unit⁵ for this investigation, were identified as locations where AFFF may have been used, resulting in a potential release of PFAS to groundwater: Site 1, the Crash Crew Training Area, and Site 17, the Former Runway Fire Training School. A third site, Building 492, the Fire Mock-up Area, was also identified as a potential source because of the likelihood of past AFFF use and its proximity to Sites 1 and 17. **Figure 2** presents the location of each of the sites.

Conceptual Site Model

This section presents a brief history of the installation, background information about the three sites comprising the decision unit, a description of the environmental setting, and an evaluation of drinking water sources in the vicinity. This information comprises the conceptual site model, which describes the relationship between potential contaminant sources and receptors through potential or actual migration and exposure pathways.

³ USEPA issued Lifetime Health Advisory for PFOS and PFOA in May 2016, superseding the 2009 provisional health advisory. USEPA has not issued a health advisory of any other PFAS.

⁴ During the evaluation, a water supply well was identified 1.1 miles downgradient of the decision unit; because of its proximity, the downgradient sampling area was expanded to include this well.

⁵ For the purposes of this investigation, two sites at NAS Fallon where AFFF may have been used (Site 1 and Site 17) were combined into a single decision unit because of their proximity to one another and their similar environmental settings.

Naval Air Station Fallon Background

NAS Fallon encompasses approximately 9,000 acres in the central part of the Carson Desert, commonly referred to as the Lahontan Valley. The Base originally was established as a military facility in 1942. NAS Fallon serves primarily as an aircraft weapons delivery and tactical air combat training facility, and includes airfield and appurtenant maintenance facilities, public works and supply facilities, and housing facilities (TEC, 2002).

Site 1 – Crash Crew Training Area Description

Site 1 was used from the mid-1950s until April 1988, for firefighting training activities. The site contained two aboveground storage tanks (1,000- and 5,000-gallon capacity), underground piping, and an approximately 25-foot diameter by 3-foot-deep unlined pit. Flammable liquids used in the pit were waste products from the fuel farms, aircraft maintenance, and vehicle maintenance. Approximately 90 percent of the burned materials were off-specification fuel, 9 percent oil, and 1 percent solvents. PFAS have been detected in groundwater at Site 1 (Moody and Field, 1999).

Site 17 – Former Runway Fire Training School Description

Site 17 was used for aircraft maintenance and repair from 1941 to 1943, and again from 1951 to the present. Site 17 was also used for firefighting training exercises. Waste was generated as the result of spills that occurred during servicing and washing aircraft. The fluids included wash solvents, lube oil, hydraulic fluid, grease, aviation gasoline, jet fuels, methyl ethyl ketone, isopropyl alcohol, and PD-680. The two unpaved areas received runoff from spill and aircraft servicing and washing. Aircraft maintenance and cleaning practices have been revised such that wash solvents and petroleum hydrocarbons are no longer released to the environment. No further action was proposed in November 2003, for Site 17, which NDEP accepted (CH2M, 2016).

Building 492 – Fire Mock-up Area Description

Building 492 consists of a fire training pit with a mock-up aircraft. Site history is unknown.

Geology and Hydrogeology

Valley fill was deposited by ancient Lake Lahontan and a Quaternary lake, which expanded and contracted frequently. Sediments are made up of gravel, sand, silt, and clay, and are generally distributed in longitudinal, layered strata at NAS Fallon.

The shallow alluvial aquifer consists mainly of coarse-grained geologic deposits that are laterally and vertically discontinuous within fine-grained deposits. Water quality is poor and not used for drinking water. Groundwater flow direction is generally to the southeast (**Figure 2**). Below the upper interbedded coarse grained and fine-grained deposits, there is a continuous layer of fine-grained silts and clays that form an aquitard. This boundary between the shallow and the intermediate aquifer lies at about 25 to 50 feet below ground surface (bgs) (TEC, 2002).

A boundary between the intermediate and deep aquifer lies at about 500 to 1,000 feet bgs regionally. A basalt aquifer lies sandwiched in the alluvium at approximately 600 feet bgs. This basalt aquifer is the major source of domestic water in the area and is likely recharged by the intermediate and deep alluvial aquifers.

Migration Pathways, Potential Receptors, and Exposure Routes

Releases of PFAS-containing compounds, such as AFFF, to the ground surface at any of the three sites comprising the decision unit could have migrated vertically to the subsurface via infiltrating precipitation, eventually leaching to groundwater. In addition, because of the presence of wetlands, drainage ditches, and canals in the vicinity of the decision unit, stormwater runoff may potentially contribute to significant overland transport of PFAS-containing compounds beyond the decision unit boundary. Because of the strength of the carbon-fluorine

bond, PFAS are very stable and persistent in the environment and are highly soluble and sorb only moderately to organic matter and mineral surfaces, meaning they migrate readily in the subsurface. Since groundwater beneath NAS Fallon has been impacted by PFAS it is possible that these chemicals could have been transported via advection with groundwater flow towards downgradient or crossgradient water wells, placing the current users of these wells at risk from ingesting water impacted by PFAS.

Drinking Water Source Evaluation

The City of Fallon does not supply potable water to the area south of NAS Fallon. The downgradient sampling area is presented as **Figure 3**. Three private wells were identified downgradient of the decision unit, two of which were determined to be agricultural wells not used for drinking water on vacant properties. The third private well was determined to be an agricultural well in addition to an occasional drinking water source (Churchill Assessor, 2016).

Summary of Field Activities

This section provides a summary of field investigation activities, including mobilization and dates of fieldwork, a summary of sampling activities, including sample locations and number and type of samples collected, and a summary of sample packing and shipping procedures. All field activities were conducted in accordance with the standard operating procedures (SOPs) outlined in the SAP (CH2M, 2017).

Mobilization

Two CH2M staff mobilized to NAS Fallon to collect one drinking water sample. The staff were accompanied by the Installation Environmental Program Director and an environmental engineer for the Navy. All fieldwork was completed on March 14, 2017. A summary of activities is provided herein.

Summary of Sampling Activities

One drinking water sample and associated field quality control (QC) samples were collected from one well near NAS Fallon.

The sample was collected in accordance with the SOP for *Drinking Water Sampling when Analyzing for PFAS*, provided in Appendix A of the SAP (CH2M, 2017). The sample was collected directly into 250-milliliter, high-density polyethylene sample bottles. Additional sample details are provided in **Table 1**.

Table 1. Sample Summary

Naval Air Station Fallon
Fallon, Nevada

Station ID	Sample ID	Sample Time	QC Sample ID	Well Water Use	Sample Location	Well depth (feet bgs)	Special Equipment Used for Sample Collection
FA-RW01	FA-RW01-0317	9:39 AM	FA-RW01-0617-MS FA-RW01-0617-SD FA-FB01-0617	Agricultural and drinking	Outside spigot near well	138	None

Notes:

FA = Fallon

FB = field reagent blank

ID = identification

MS = matrix spike

RW = residential water

SD = matrix spike duplicate

Sample Packing and Shipping Procedures

Sample bottles were properly labeled, placed into resealable zipper storage bags, and then placed into a heavy-duty garbage bag, which was placed into the shipping cooler provided by the laboratory (TestAmerica, West Sacramento, California), and then packed with ice. The completed chain-of-custody, provided in **Attachment 1**, was included in the cooler. The cooler was then shipped via FedEx overnight to the laboratory.

Summary of Sample Results

This section provides a brief discussion of the project action limits (PALs), as well as a summary of laboratory results for the drinking water samples collected for analysis of PFAS compounds, including PFOA, PFOS, and PFBS, and a data validation summary and usability assessment.

Project Action Limits

As indicated in the SAP (CH2M, 2017), the PALs for this project are the USEPA Lifetime Health Advisory values for PFOA and PFOS (0.07 µg/L) (USEPA, 2016a and 2016b), and the USEPA Regional Screening Level for PFBS (400 µg/L) (USEPA, 2017).

Sampling Results

One drinking water sample was collected and analyzed for PFOA, PFOS, and PFBS, in accordance with USEPA Method 537/WS-DW-0004, Rev. 1.1. Laboratory results indicate that none of these compounds were detected in the sample. A results summary is provided on **Figure 3**. The raw data is provided in **Attachment 2**.

Data Validation Summary

No QC deficiencies were found; therefore, all laboratory data are usable with no rejected or qualified data points. The Data Validation Summary Report is provided in **Attachment 3**.

Conclusions

PFAS was not detected in the privately-owned drinking water supply well located within the downgradient sampling area of the decision unit. As such, no further action is warranted for the off-Base drinking water wells within the downgradient area of the decision unit at this time, although additional long-term assessment of offsite migration potential may be warranted based on the results of future investigations.

References

- CH2M HILL, Inc. (CH2M). 2016. *Technical Memorandum – Results of Desktop Evaluation to Verify Off-Base Drinking Water Sources*. September.
- CH2M. 2017. *Final Sampling and Analysis Plan for Investigation of Per- and Polyfluoroalkyl Substances in Drinking Water, Naval Air Station Fallon, Fallon, Nevada (SAP)*. March.
- Churchill County Assessor's Office (Churchill Assessor). 2016. Property Records and Real Property Inquiry. Accessed September 21. <http://www.churchillcounty.org/index.aspx?NID=88>
- Moody, Cheryl A. and Jennifer A. Field. 1999. "Determination of Perfluorocarboxylates in Groundwater Impacted by Fire-Fighting Activity." *Environmental Science Technology*. V. 33. Pgs 2800-2806.
- Nevada Department of Environmental Protection (NDEP). 2018. Basic Contaminant Levels. Accessed March 21, 2018. www.ndep.nv.gov.

Nevada Department of Water Resources (DWR). 2016. Well Log Database Query Tool. Accessed September 21.
<http://water.nv.gov/data/wellog/>

The Environmental Company, Inc. (TEC). 2002. *Final Spring 2002 Groundwater Sampling Data Report, Naval Air Station (NAS) Fallon, Fallon, Nevada*.

United States Environmental Protection Agency (USEPA). 2016a. *Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA)*. EPA 822-R-16-005. Office of Water. May.

USEPA. 2016b. *Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS)*. EPA 822-R-16-004. Office of Water. May.

USEPA. 2017. *Regional Screening Level (RSL) Resident Tapwater Table*. November.

Figures



Legend

- City
- Base Boundary
- Freeway or Other Major Road
- Road

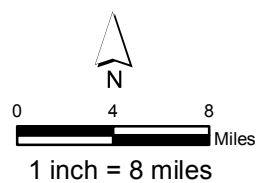





Figure 1
Base Location Map
NAS Fallon
Churchill County, Nevada



Legend

-  Estimated Groundwater Flow Direction
-  Decision Unit Boundary (suspected source)
-  Base Boundary

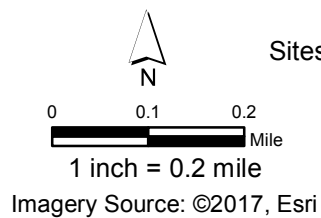
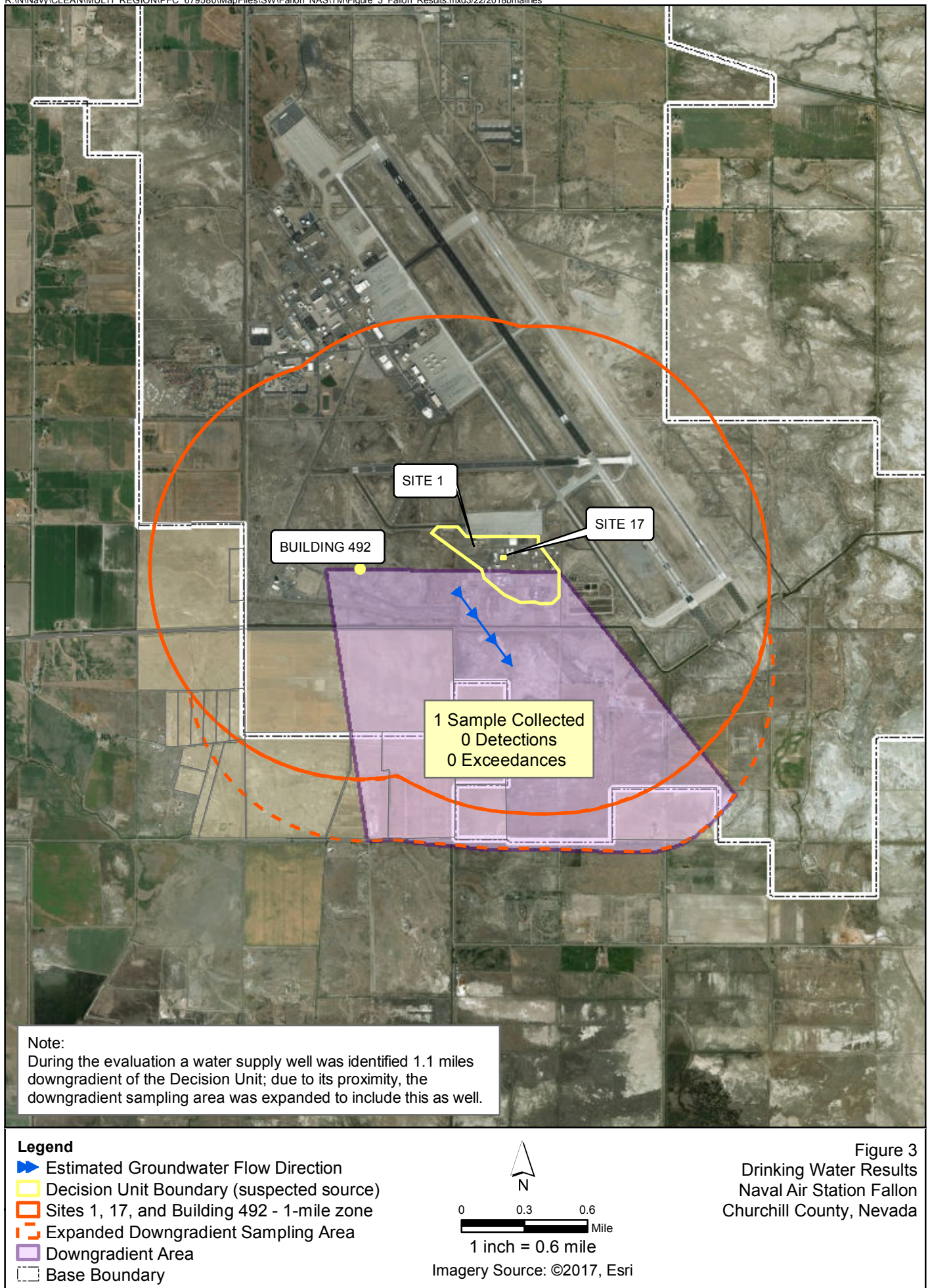


Figure 2
Sites 1, 17, and Building 492 Site Layout Map
Naval Air Station Fallon
Churchill County, Nevada



Attachment 1

Chain-of-Custody

TestAmerica Laboratories, Inc.

CH2M-9000-0008-0012, MAY 2019

Attachment 2

Raw Data Table

Attachment B. Sample Results Raw Data

Naval Air Station Fallon

Fallon, Nevada

Sample ID	FA-RW01-0317
Sample Date	3/14/17
Perfluorobutanesulfonic acid (PFBS)	0.094 UJ
Perfluorooctane Sulfonate (PFOS)	0.041 UJ
Perfluorooctanoic acid (PFOA)	0.021 UJ

Notes:

UJ - Analyte not detected, quantitation limit may be
inaccurate

units are in micrograms per liter (µg/L)

Attachment 3

Data Validation Summary Report

**DATA VALIDATION SUMMARY REPORT
NAS FALLON, NEVADA**

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 320-26625-1
Laboratory: Test America, Sacramento, California
Site: NAS Fallon, CTO-0008, Nevada
Date: April 1, 2017

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	FA-RW01-0317	320-26625-1	Water
1MS	FA-RW01-0317MS	320-26625-1MS	Water
1MSD	FA-RW01-0317MSD	320-26625-1MSD	Water
2	FA-FB01-0317	320-26625-2	Water

A full data validation was performed on the analytical data for one water sample and one aqueous field blank sample collected on March 14, 2017 by CH2M HILL at the NAS Fallon site in Nevada. The samples were analyzed under the EPA Method "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)".

Specific method references are as follows:

Analysis
PFCs

Method References
USEPA Method 537 Rev 1.1 Modified

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, and the U.S. Department of Defense (DoD) Quality Systems Manual (QSM), Version 5.0 (July 2013) and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review," August 2014;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning

- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- The field blank sample was free of contamination.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values except for the following.

Sample ID	Surrogate	%R	Qualifier
1	13C2-PFHxA	63%	UJ

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable %R and RPD values except for the following.

MS/MSD ID	Surrogate	MS %R/MSD %R/RPD	Qualifier
1	PFBS	63%/65%/OK	None - See Surrogates

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

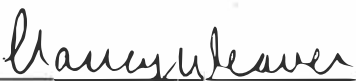
- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:


Nancy Weaver
Senior Chemist

Dated: 4/4/17

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-26625-1
 SDG No.: _____
 Client Sample ID: FA-RW01-0317 Lab Sample ID: 320-26625-1
 Matrix: Water Lab File ID: 2017.03.21 537A 009.d
 Analysis Method: 537 Date Collected: 03/14/2017 09:39
 Extraction Method: 537 Date Extracted: 03/21/2017 07:18
 Sample wt/vol: 291.4 (mL) Date Analyzed: 03/21/2017 20:04
 Con. Extract Vol.: 1.00 (mL) Dilution Factor: 1
 Injection Volume: 2 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 156182 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.041	<u>Y</u> <u>uJ</u>	0.051	0.041	0.013
335-67-1	Perfluorooctanoic acid (PFOA)	0.021	<u>Y</u> <u>uJ</u>	0.026	0.021	0.0081
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.094	<u>Y</u> <u>uJ</u>	0.12	0.094	0.041

SSL
SSL
SSL

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	63	Q	70-130
STL00996	13C2 PFDA	90		70-130

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

2

Lab Name: TestAmerica Sacramento Job No.: 320-26625-1
 SDG No.: _____
 Client Sample ID: FA-FB01-0317 Lab Sample ID: 320-26625-2
 Matrix: Water Lab File ID: 2017.03.21 537A 012.d
 Analysis Method: 537 Date Collected: 03/14/2017 09:38
 Extraction Method: 537 Date Extracted: 03/21/2017 07:18
 Sample wt/vol: 277.2 (mL) Date Analyzed: 03/21/2017 20:17
 Con. Extract Vol.: 1.00 (mL) Dilution Factor: 1
 Injection Volume: 2 (uL) GC Column: GeminiC18 3x100 ID: 3 (mm)
 % Moisture: _____ GPC Cleanup: (Y/N) N
 Analysis Batch No.: 156182 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.043	U	0.054	0.043	0.014
335-67-1	Perfluorooctanoic acid (PFOA)	0.022	U	0.027	0.022	0.0085
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.099	U	0.13	0.099	0.043

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	85		70-130
STL00996	13C2 PFDA	89		70-130



MEMORANDUM

To: Tiffany Hill, Project Chemist

From: Nancy Weaver, Senior Chemist

Date: March 27, 2018

Re: Incorrect PFC Method Reference for Fallon, CTO-0008

Per our conversation, Environmental Data Services, Inc. inadvertently referenced EPA Method 537 as modified. However, Method 537 was actually performed without modifications. This applies to the follow SDG:

320-26625-1

Regards,

Nancy Weaver

Nancy Weaver
Senior Chemist